

## PCT

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference <b>EBC97-06A2</b>	<b>FOR FURTHER ACTION</b> see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. <b>PCT/US 98/ 06684</b>	International filing date (day/month/year) <b>03/04/1998</b>	(Earliest) Priority Date (day/month/year) <b>07/04/1997</b>
Applicant <b>ENERGY BIOSYSTEMS CORPORATION et al.</b>		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 3 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. ☐ Certain claims were found unsearchable (see Box I).

2. ☐ Unity of invention is lacking (see Box II).

3. ☒ The international application contains disclosure of a **nucleotide and/or amino acid sequence listing** and the international search was carried out on the basis of the sequence listing

☒ filed with the international application.

☐ furnished by the applicant separately from the international application,

☐ but not accompanied by a statement to the effect that it did not include matter going beyond the disclosure in the international application as filed.

☐ Transcribed by this Authority

4. With regard to the **title**, ☒ the text is approved as submitted by the applicant

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this International Search Report, submit comments to this Authority.

6. The figure of the **drawings** to be published with the abstract is:

Figure No. \_\_\_\_\_ ☐ as suggested by the applicant.

☐ because the applicant failed to suggest a figure.

☐ because this figure better characterizes the invention.

☒ None of the figures.

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 6 C12N15/52 C12N9/02 C12N1/21 C12P11/00 C12S1/02  
C10G32/00

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 6 C12N C12P C12S C10G

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 94 01563 A (ENERGY BIOSYSTEMS CORP ; RAMBOSEK JOHN (US); PIDDINGTON CHRIS S (US) 20 January 1994 cited in the application see abstract see Seq. ID 1-5 ---	9, 12, 15, 18-23
A	EP 0 218 734 A (ATLANTIC RES CORP) 22 April 1987 see the whole document --- -/--	1-75

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

## ° Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

31 July 1998

Date of mailing of the international search report

13/08/1998

Name and mailing address of the ISA

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	GRAY K.A. ET AL.: "Molecular mechanisms of biocatalytic desulfurization of fossil fuels." NATURE BIOTECHNOLOGY, vol. 14, 14 December 1996, pages 1705-1709, XP002073201 cited in the application see the whole document ---	1-75
A	CONSTANTI M. ET AL.: "Desulphurization of dibenzothiophene by bacteria" WORLD J. OF MICROBIOLOGY & BIOTECHNOLOGY, vol. 10, no. 5, 1994, pages 510-516, XP002072523 see the whole document ---	1-75
A	KLUBEK B. ET AL.: "Characterization of soil bacteria that desulfurize organic sulfur compounds. 1. Classification and growth studies." MICROBIOS, vol. 88, no. 357, 1996, pages 223-236, XP002072524 see abstract -----	1-75

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 9401563	A	20-01-1994	AU 684253 B	11-12-1997
			AU 4671893 A	31-01-1994
			AU 5835398 A	02-07-1998
			CA 2139876 A	20-01-1994
			CN 1085254 A	13-04-1994
			EP 0651808 A	10-05-1995
			JP 7507691 T	31-08-1995
			MX 9304135 A	31-01-1995
			NO 950081 A	09-03-1995
			US 5356801 A	18-10-1994
			US 5578478 A	26-11-1996
EP 0218734	A	22-04-1987	US 4562156 A	31-12-1985